IN THE CLAIMS:

1.-5.   (Cancelled)

6.   (Currently amended) A superconducting ceramic of the general formula
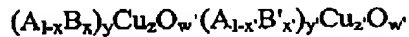
$(A_{1-x}B_x)_y Cu_z O_w \cdot (A_{1-x'}B'_{x'})_{y'} Cu_{z'} O_{w'}$

in which $0.1 \leq x < 1$

   $0.1 \leq x' < 1$

   $y = 2.5\text{-}3.5,$

   $y' = 2.5\text{-}3.5,$

   $z = 1.5\text{-}3.5,$

   $z' = 1.5\text{-}3.5,$

   $w = 6.0\text{-}8.0,$
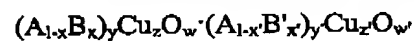
   $w' = 6.0\text{-}8.0,$

A is one rare earth element and

each of B and B' ~~are two~~ is one or more alkaline earth elements,

wherein the superconducting ceramic has the stoichiometric formula $YbBaSrCu_3O_{6\text{-}8}$.

7.   (Cancelled)

8.   (Currently amended) A superconducting ceramic of the general formula

$(A_{1-x}B_x)_y Cu_z O_w \cdot (A_{1-x'}B'_{x'})_{y'} Cu_{z'} O_{w'}$

in which $0.1 \leq x < 1$

   $0.1 \leq x' < 1$

   $y = 2.5\text{-}3.5,$

   $y' = 2.5\text{-}3.5,$

   $z = 1.5\text{-}3.5,$

   $z' = 1.5\text{-}3.5,$

   $w = 6.0\text{-}8.0,$

   $w' = 6.0\text{-}8.0,$

A is one rare earth element and

each of B and B' ~~are two~~ is one or more alkaline earth elements,

wherein the superconducting ceramic has the stoichiometric formula ~~YbBa$_{0.7}$Sr$_{0.6}$Ca$_{0.6}$Cu$_3$O$_{6-8}$~~ YbBa$_{0.7}$Sr$_{0.7}$Ca$_{0.6}$Cu$_3$O$_{6-8}$.

9.   (Cancelled)

10.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w\cdot(A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$
in which $0.1 \leq x < 1$
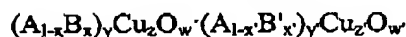
$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5$,

$y' = 2.5\text{-}3.5$,

$z = 1.5\text{-}3.5$,
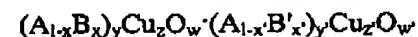
$z' = 1.5\text{-}3.5$,

$w = 6.0\text{-}8.0$,

$w' = 6.0\text{-}8.0$,

A is more than one rare earth element and

each of B and B' ~~are two~~ is one or more alkaline earth elements,

wherein the superconducting ceramic has the stoichiometric formula Y$_{0.5}$Yb$_{0.5}$BaSrCu$_3$O$_{6-8}$.

11.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w\cdot(A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$
in which $0.1 \leq x < 1$

$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5$,

$y' = 2.5\text{-}3.5$,

$z = 1.5\text{-}3.5$,

$z' = 1.5\text{-}3.5$,

$w = 6.0\text{-}8.0$,

$w' = 6.0\text{-}8.0$,

A is more than one rare earth element and

each of B and B' ~~are two~~ is one or more alkaline earth elements,

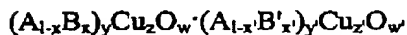wherein the superconducting ceramic has the stoichiometric formula $Y_{0.5}Yb_{0.5}BaCaCu_3O_{6-8}$.

12. – 38. (Cancelled)

39.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w \cdot (A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$

in which $0.1 \leq x < 1$

$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5,$

$y' = 2.5\text{-}3.5,$

$z = 1.5\text{-}3.5,$

$z' = 1.5\text{-}3.5,$

$w = 6.0\text{-}8.0,$

$w' = 6.0\text{-}8.0,$

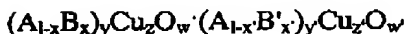wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements,

wherein A includes Yb,

B includes Ba and

B' includes Sr.

40.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w \cdot (A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$

in which $0.1 \leq x < 1$

$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5,$

$y' = 2.5\text{-}3.5,$

$z = 1.5\text{-}3.5,$

$z' = 1.5\text{-}3.5,$

$w = 6.0\text{-}8.0,$

$w' = 6.0\text{-}8.0,$

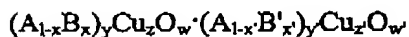wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements,

wherein A includes Yb,

B includes Ba and

B' includes Sr and Ca.

41.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w \cdot (A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$

in which $0.1 \leq x < 1$

$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5$,

$y' = 2.5\text{-}3.5$,

$z = 1.5\text{-}3.5$,

$z' = 1.5\text{-}3.5$,

$w = 6.0\text{-}8.0$,

$w' = 6.0\text{-}8.0$,

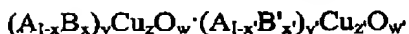wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements,

wherein A includes Y and Yb,

B includes Ba and

B' includes Sr.

42.   (Currently amended) A superconducting ceramic of the general formula
$(A_{1-x}B_x)_yCu_zO_w \cdot (A_{1-x'}B'_{x'})_{y'}Cu_{z'}O_{w'}$

in which $0.1 \leq x < 1$

$0.1 \leq x' < 1$

$y = 2.5\text{-}3.5$,

$y' = 2.5\text{-}3.5$,

$z = 1.5\text{-}3.5$,

$z' = 1.5\text{-}3.5$,

$w = 6.0\text{-}8.0$,

$w' = 6.0\text{-}8.0$,

wherein A is one rare earth element, and

each of B and B' is one or more alkaline earth elements,

wherein A includes Y and Yb,

B includes Ba and

B' includes Ca.

43. - 44. (Cancelled)

45.   (New) A superconducting ceramic having the stoichiometric formula $YbBaSrCu_3O_{6-\delta}$.

46.   (New) A superconducting ceramic having the stoichiometric formula $YbBa_{0.7}Sr_{0.7}Ca_{0.6}Cu_3O_{6-\delta}$.

47.   (New) A superconducting ceramic having the stoichiometric formula $Y_{0.5}Yb_{0.5}BaSrCu_3O_{6-\delta}$.

48.   (New) A superconducting ceramic having the stoichiometric formula $Y_{0.5}Yb_{0.5}BaCaCu_3O_{6-\delta}$.

49.   (New) A superconducting ceramic having the stoichiometric formula $Yb_{0.5}Gd_{0.5}Ba_2Cu_3O_{6-\delta}$.

50.   (New) A superconducting ceramic having the stoichiometric formula $Yb_{0.5}Nd_{0.5}Ba_2Cu_3O_{6-\delta}$.